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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/564,909

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EXAMINER

PENDLETON, DIONNE

ART UNIT

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2627

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/564,909	Applicant(s) BLACQUIERE ET AL.	
	Examiner DIONNE H. PENDLETON	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. **Claims 4,5,11 and 12** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The following claim terms are unclear as to the scope of coverage:

"defect table" in lines 2, 5 and 7 of claim 4, and

"defect table" in lines 2, 4 and 6 of claim 11,

Does this term refer to the *defect table* of the optical medium, or to a newly created defect table within the recording apparatus? Clarification is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-15 are rejected under 35 U.S.C. 102(e) as being anticipated by **Lee (US 2004/0004917 A1)**.

Regarding claim 1,

Lee teaches a recording apparatus for recording digital information signals on a removable rewritable disc like recording medium,

the medium comprising a user area (**“DA” in figure 2**) comprising user data represented by the digital information signals and a table area (**“DT” “STA” “SA”**) outside the user area comprising a defect table, the defect table comprising defect management data (**see figure 7a**) having a predefined data format (**[0044] teaches that data on said disc complies with CD-MRN protocol**), the defect management data related to defect areas in the user area and replacement areas (**“SA”**) on the medium,

the recording apparatus inherently comprising

input means for receiving the digital information signals;

recording means for recording the digital information signals on the medium;

reading means for reading recorded digital information signals recorded on the medium;

output means for outputting the read digital information signals; and

control means for controlling recording the digital information signals, characterized in that the control means are adapted to read the defect table from the medium **(paragraphs [0024] and [0055])**, to modify the defect management data comprised in the defect table read in order to block write access to the user area according to predefined defect management rules **(paragraph [0056])** and to record the defect table comprising modified defect management data on the medium **(paragraph [0058])**.

Regarding claim 2,

Lee teaches the recording apparatus as claimed in claim 1, the defect management data comprising a list of addresses of the replacement areas, characterized in that the control means are adapted to search the list of addresses of the replacement areas comprised in the defect table read for free replacement area addresses of all free replacement areas without the user data **(lines 1-3 of paragraph [0009], also see [0011])** and to modify the defect management data by marking the all free replacement areas as unusable **(paragraph [0051])**.

Regarding claim 3,

Lee teaches the recording apparatus as claimed in claim 1, characterized in that the control means are adapted to replace a part of the defect management data by data

having a format different from the predefined data format (**paragraph [0044] teaches that the status table in memory “40” is in a format different from that which is used on the optical medium**).

Regarding claim 4,

As best understood with regard to the USC 112 second paragraph rejection above, Lee teaches a recording apparatus as claimed in claim 1, the medium comprising a primary defect table (**DT**), the defect table being a copy of the primary defect table (**paragraph [0055] teaches that the defect list of DT is read into the memory “40”**), characterized in that the control means are adapted to modify the defect management data comprised in the defect table read with respect to primary defect management data comprised in the primary defect table, so the defect management data comprised in the defect table are inconsistent with the primary defect management data (**paragraph [0057]**).

Regarding claim 5,

As best understood with regard to the USC 112 second paragraph rejection above, Lee teaches a recording apparatus as claimed in claim 4, the primary defect management data comprising primary update counter data related to updates of the primary defect table, characterized in that the control means are adapted to modify a

copy of the primary update counter data comprised in the defect management data with respect to the primary update counter data.

Regarding claim 6,

Lee teaches a recording apparatus as claimed in claim 1, characterized in that the control means are adapted to generate protection data (**see discussion of the status table “50” in paragraphs [0044] and [0055], interpreted as corresponding to “protection data”**) comprising information related to modification of the defect management data and to record the protection data on the medium.

Regarding claim 7,

Lee teaches a recording apparatus as claimed in claim 6, characterized in that the control means are adapted to read the protection data and the defect table comprising the modified defect management data from the medium (**lines 10-16 in paragraph [0058]**), to restore the defect management data from the modified defect management data using the protection data in order to resume write access to the user area according to the predefined defect management rules (**lines 16-19 of paragraphs [0058]**) and to record the defect table comprising the defect management data on the medium (**lines 5-10 of paragraphs [0058]**).

Regarding claim 8,

Lee teaches a method of protecting digital information signals recorded on a removable rewritable disc like recording medium, the medium comprising a user area comprising user data represented by the digital information signals and a table area outside the user area comprising a defect table, the defect table comprising defect management data having a predefined data format, the defect management data related to defect areas in the user area and replacement areas on the medium, the method characterized by

reading the defect table from the medium **(paragraphs [0055]);**

modifying the defect management data comprised in the defect table read in order to block write access to the user area according to predefined defect management rules **(paragraphs [0056]);**

recording the defect table comprising modified defect management data on the medium **(paragraphs [0058]).**

Regarding claim 9,

Lee teaches a method as claimed in claim 8, the defect management data comprising a list of addresses of the replacement areas, characterized by searching the list of address of the replacement areas comprised in the defect table read for free replacement area addresses of all free replacement areas without the user data **(lines**

1-3 of paragraph [0009], also see [0011]) and modifying the defect management data by marking the all free replacement areas as unusable **(paragraph [0051])**.

Regarding claim 10,

A method as claimed in claim 8, characterized by replacing a part of the defect management data by data having a format different from the predefined data format **(paragraph [0044] teaches that the status table in memory “40” is in a format different from that which is used on the optical medium)**.

Regarding claim 11,

As best understood with regard to the USC 112 second paragraph rejection above, Lee teaches a method as claimed in claim 8, the medium comprising a primary defect table **(DT)**, the defect table being a copy of the primary defect table **(paragraph [0055] teaches that the defect list of DT is read into the memory “40”)**, characterized by modifying the defect management data comprised in the defect table read with respect to primary defect management data comprised in the primary defect table, so the defect management data comprised in the defect table are inconsistent with the primary defect management data **(paragraph [0057])**.

Regarding claim 12,

As best understood with regard to the USC 112 second paragraph rejection above, Lee teaches a method as claimed in claim 11, the primary defect management data comprising primary update counter data related to updates of the primary defect table, characterized by modifying a copy of the primary update counter data comprised in the defect management data with respect to the primary update counter data.

Regarding claim 13,

Lee teaches a method as claimed in claim 8, characterized by generating protection data (**see discussion of the status table “50” in paragraphs [0044] and [0055], interpreted as corresponding to “protection data”**) comprising information related to modification of the defect management data; recording the protection data on the medium.

Regarding claim 14,

Lee teaches a method as claimed in claim 13, characterized by reading the protection data and the defect table comprising the modified defect management data from the medium (**paragraph [0058], lines 10-46**);

restoring the defect management data from the modified defect management data using the protection data in order to resume write access to the user area according to the predefined defect management rules **(lines 16-19 of [0058])**; recording the defect table comprising the defect management data on the medium **(lines 5-10 of [0058])**.

Regarding claim 15,

Lee teaches a computer data system **(“46” in figure 5)** comprising a computer connected to a recording apparatus for recording digital information signals on a removable rewritable disc like recording medium, the medium comprising a user area **(“DA” in figure 2)** comprising user data represented by the digital information signals and a table area **(“DT” “STA” “SA”)** outside the user area comprising a defect table, the defect table comprising defect management data **(see figure 7a)** having a predefined data format **([0044] teaches that data on said disc complies with CD-MRN protocol)**, the defect management data related to defect areas in the user area and replacement areas **(“SA”)** on the medium,

the recording apparatus inherently comprising

input means for receiving the digital information signals;

recording means for recording the digital information signals on the medium;

reading means for reading recorded digital information signals recorded on the medium;

output means for outputting the read digital information signals; and

control means for controlling recording the digital information signals, characterized in that the computer is adapted to control the control means of the recording apparatus to perform the method according to claim 8.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. **Claim 16** is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 16 is drawn to a “program” *per se* as recited in the preamble and as such is non-statutory subject matter. See MPEP § 2106.IV.B.1.a. Data structures not claimed as embodied in tangible computer readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention, which permit the data structure's functionality to be

realized. In contrast, a claimed tangible computer readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DIONNE H. PENDLETON whose telephone number is (571)272-7497. The examiner can normally be reached on 10:30-7:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571-272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dionne H Pendleton/
Examiner, Art Unit 2627

/Wayne R. Young/
Supervisory Patent Examiner, Art Unit 2627